



UCM 2.5 Introduction

2019-01-18

UCM 2.5 New Feature Summary

Category	New Feature
Interworking enhancement	IPv6 support for SIP extension (trunk call is IPv4), Configuration, DBMS, Admin (WMS)
	Open APIs for Phone Control & Call Status Event / Presence Event
	LDAP TLS support
	MADN call control support for SAPP API
License separation	SCTI license separation for XML application (control/event) - UCML-SCTI : call control - UCML-SCTI-XML : call event
	NMS license separation for 3 rd party NMS Interworking (server/interface) - UCML-NMS : NMS interface license - UCML-NMS-SRV : NMS server license
Clients / Applications	SIP ACD enhancement (LIP9002/10/20/30/40/40c) - Silent monitoring - Ring/tone mode - Handset/headset mode
	LIP ACD enhancement - Single Step Conference (for ACD agents)
	LIP UX improvement : - Consolidated search - Call Log Management - 9070/9071 conference member display
	IP ATD call forwarding

History

	UCM 1.0 (2016 DEC)	UCM 2.0 (2017 DEC)	UCM 2.5 (2019 FEB)
Platform / Features	- Capacity up to 960K port - ACT-ACT operation - DB encryption - Admin UI upgrade (HTML5) - Multicast paging	- Enhanced Node Redundancy - Inter node call - IP Redirection - MDTM loopback - KT BMT related features - POSCO/K&J features - TLS certificate management - SW VPCM support (2019 Q2)	- IPv6 SIP extension call - SIP ACD enhancement - IP ATD call forwarding - Single Step Conference (ACD)
Interworking	- iPECS E-SBC (Skycom) - iPECS E-VM (Skycom) - Vertical (US) Applications [Service Response & Call Navigation]	- Vertical (US) app I/F upgrade - ACMD/ACS I/F upgrade - Client2server REST API - LDAP synchronization - SMDR call ID - QSIG feature upgrade - IPCR interworking	- Server2server REST API - SAPP MADN support - LDAP TLS support
H/W support	- New UCM H/W - eMG80 LCM	- MDTMX2 (E1/ R2/ SS7) - ASLM upg. (Line Monitoring)	
Client support	- LIP9010/9020/9030/9040 - LIP9071 - IP9008 - SIP phone auto-provisioning - UCE P3 / RCCV support - LDP 9130	LIP9040C/9008/9008G	- LIP phone UX enhancement - New IP DECT
Applications	- eNMS (NMS upgrade) - eVQM (SIP only)	- eCSM (statistics/analytics) - eVQM (IPKTS)	- License separation (SCTI-XML) - License separation (NMS-SRV) - iPECS ACB

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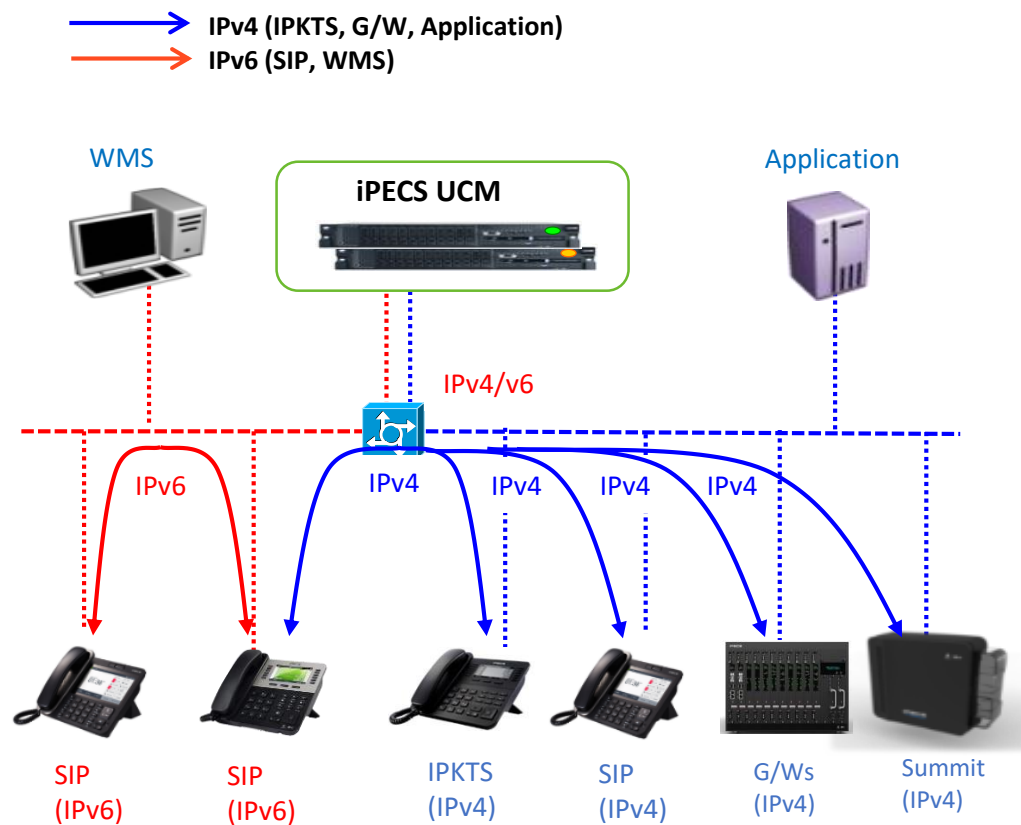
IPv6 Scope of UCM 2.5

- SIP Extension call
- SIP Trunk call with VPCM (IPv4)
- CCM interworking between ACT/ACT server, ACT/STB server, CCM/LCM server
- WMS connection

Conditions

- UCM supports Dual Stack(IPv4 & IPv6)
- IPv4 must exist by default
- S2K doesn't support IPv6 because CentOS version is too low
- To set IPv6 of CAM, CCM and LCM, the config file should be edited manually
- IPKTS devices and applications doesn't support IPv6 in UCM 2.5

UCM P2.5 Network Configuration



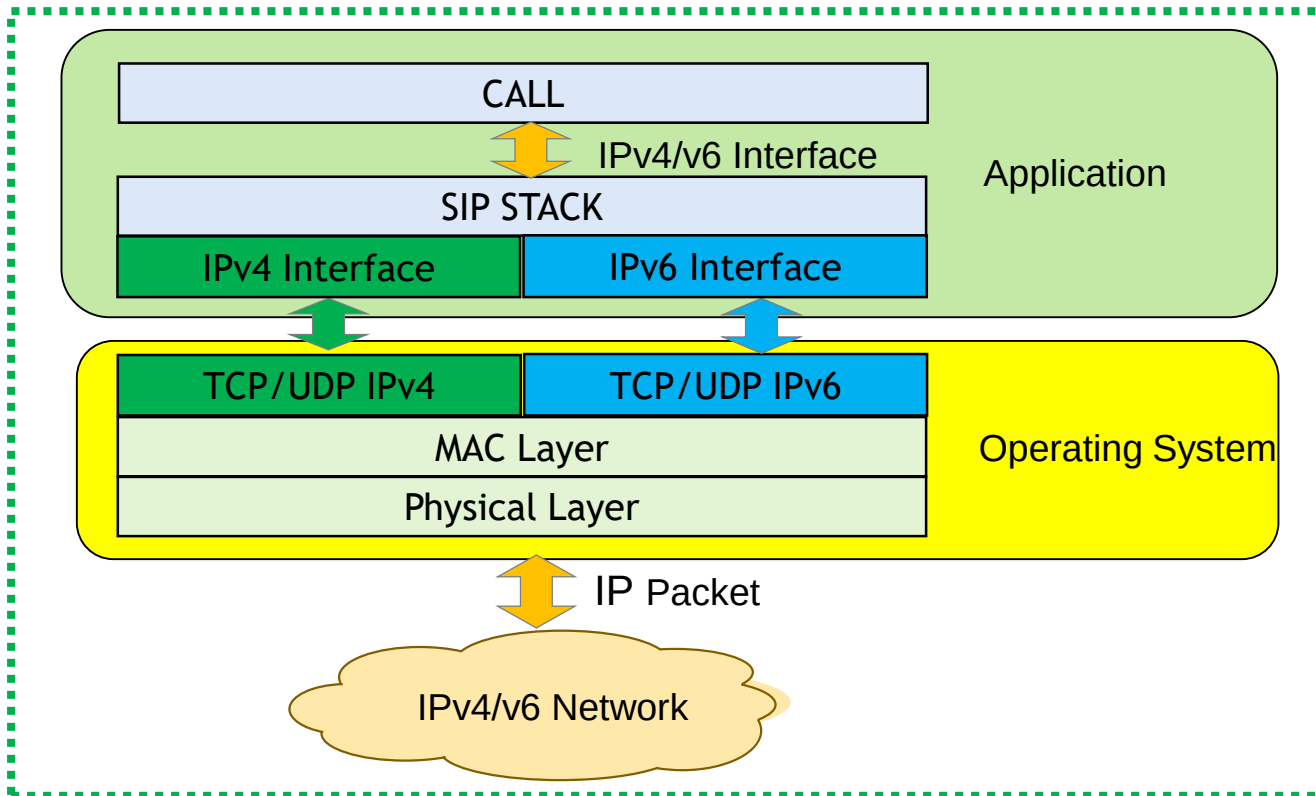
IPv6

Dual SIP Stack

- Interoperate with both IPv4 and IPv6

Common Call Task

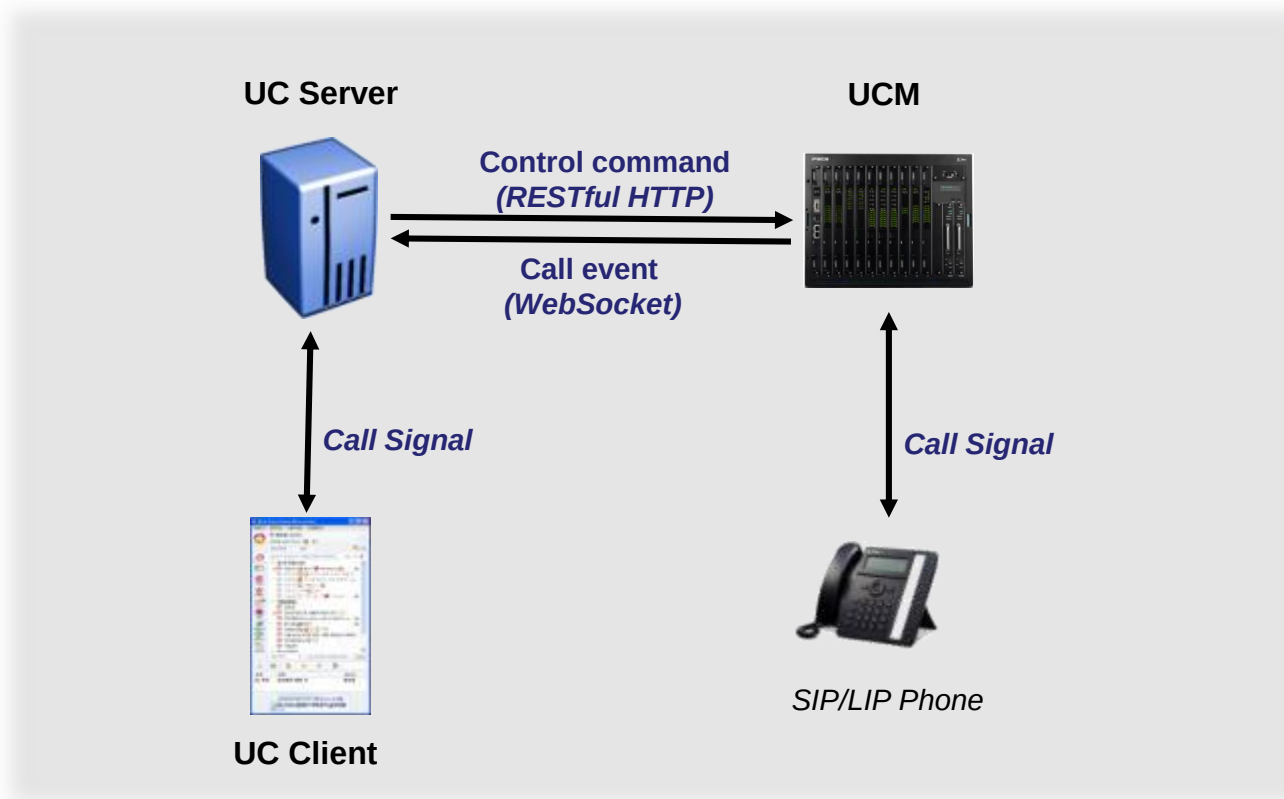
- Call task processes both IPv4 and IPv6 events.



Open API

The Open API is Restful HTTP protocol for 3rd party UC interworking. The UC client can control the desktop phone using the command APIs and synchronize the call status by receiving call events.

Open API Protocol for UC Server



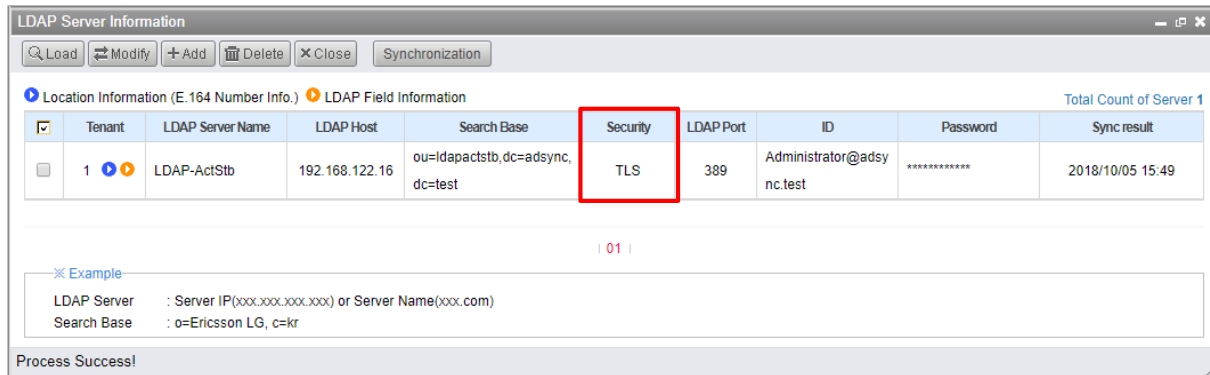
Open API – Command and Event

Control command	Call event
• Basic call APIs - make call / answer / disconnect • Supplementary call APIs - hold/resume - transfer (consultation, blind) - conference - pickup - busy service (intrusion, callback, campon, callwait) - call park/un-park - MWI • Feature control APIs - get/set call forward - get/set DND - get/set ACR • Management APIs - call monitor start/stop - presence start/stop	• Basic call events - dialing/proceeding/alerting/ringing - connected/released/failed • Supplementary call events - hold/resume - transfer - conference • Feature control events - call forward - DND - MWI • Management events - registered/unregistered

LDAP TLS

Add secure transport options for LDAP & AD

- LDAP Server Information > Security > TLS



LDAP Server Information

Location Information (E.164 Number Info.) LDAP Field Information

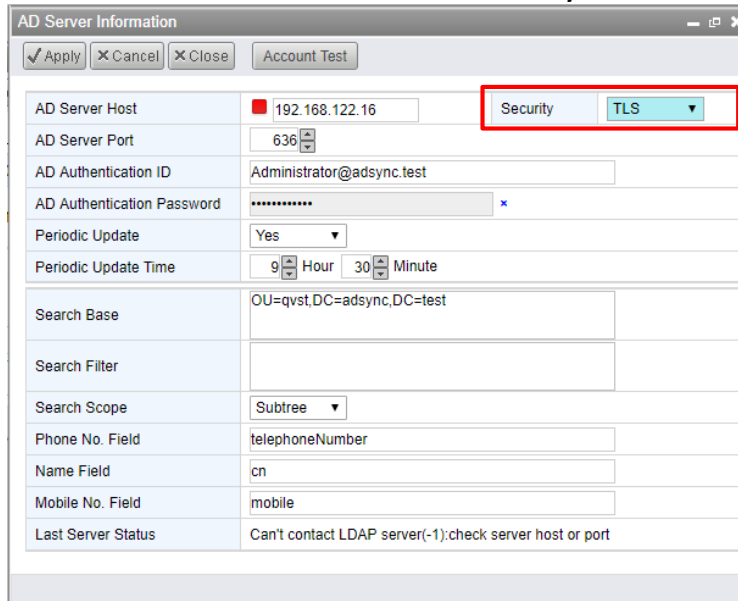
Tenant	LDAP Server Name	LDAP Host	Search Base	Security	LDAP Port	ID	Password	Sync result
1	LDAP-ActStb	192.168.122.16	ou=ldapactstb,dc=adsync,dc=test	TLS	389	Administrator@adsync.test	*****	2018/10/05 15:49

Example

LDAP Server : Server IP(XXX.XXX.XXX.XXX) or Server Name(XXX.COM)
Search Base : o=Ericsson LG, c=kr

Process Success!

- AD Server Information > Security > TLS



AD Server Information

AD Server Host: 192.168.122.16

AD Server Port: 636

AD Authentication ID: Administrator@adsync.test

AD Authentication Password: *****

Periodic Update: Yes

Periodic Update Time: 9 Hour 30 Minute

Search Base: OU=qvst,DC=adsync,DC=test

Search Filter:

Search Scope: Subtree

Phone No. Field: telephoneNumber

Name Field: cn

Mobile No. Field: mobile

Last Server Status: Can't contact LDAP server(-1):check server host or port

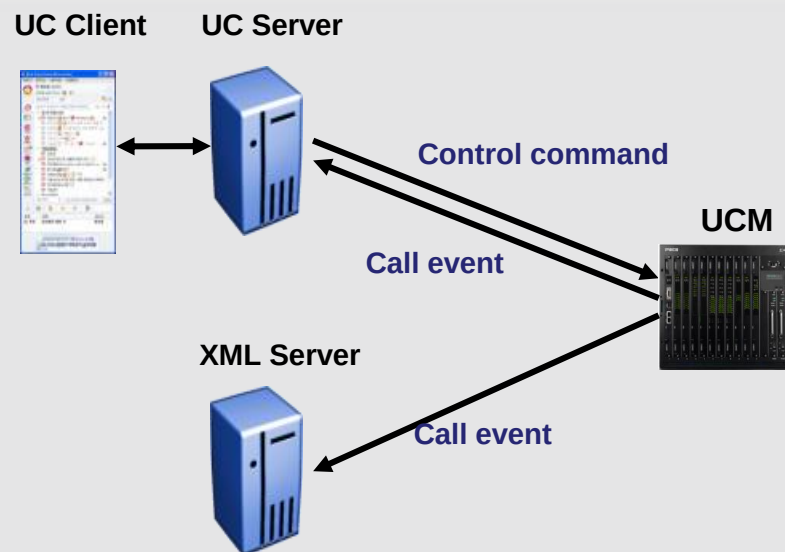
Security: TLS

License Separation

- SCTI license separation (call control / call event)

License Name	License Type	SCTI feature		Remark
		Phone control	Call event	
UCML-SCTI	Unit count	O	O	Call control license e.g.) CSTA/OCS(TR87)/SAPP agent
UCML-SCTI-XML	Unit count		O	Call event license e.g.) XML application e.g.) presence information for non-UCE end-point

NEW



License Separation

- NMS license separation (server license / interface license)

License Name	License Type	NMS service			Remark
		eNMS Application	NMS Interface	eNMS agent	
NEW UCML-NMS-SRV	Feature	O	O		iPECS eNMS server license (UCM 2.5+)
UCML-NMS	Feature		O		3 rd party NMS interface license (UCM 2.5+)
UCML-NMS-AGNT	Unit count			O	iPECS eNMS agent license

	UCM 1.0 / 2.0	UCM 2.5+
iPECS eNMS user needs	UCML-NMS + UCML-NMS-AGNT	UCML-NMS-SRV + UCML-NMS-AGNT
3 rd party NMS user needs	UCML-NMS	UCML-NMS
Remark	3 rd party NMS user had to buy expensive UCML-NMS	Existing eNMS user must download UCML-NMS-SRV to avoid limited mode error

* All UCML-NMS users will be provided with free UCML-NMS-SRV license by account manager.

SIP ACD Feature – Voice/Ring Mode

- When ACD Agent log-on or log-off, the device mode is synchronized with the setting of ACD Group Attribute.
 - Voice Mode : Headset/Headset
 - Ring Mode : Ring/Tone/Ring&Tone

Agent Log-on



Headset: ON

- Voice : Headset Mode
- Ring : Ring or Tone or Ring&Tone

Agent Log-off



Headset: OFF

- Voice : Handset Mode
- Ring : Ring

- Supported terminals : LIP-9002/08/08G/10/20/30/40/40C (SIP version)

SIP ACD Feature – Voice/Ring Mode

■ ACD Group Attribute setting

- Ring/Tone mode at Agent Log on : Ring, Tone or Ring/Tone
- Headset Mode at Agent Log on : Headset or Handset
- Handset Mode at Agent Log off : Headset or Handset

ACD Group Attribute

Node 06 Tenant 6000 Group No. 1 [Load] [Modify] [Close]

Service State	Normal state	Auto Forward Mode	No auto forward
Time Zone No.	1	CTI Call Distribution Usage Option	Not Use
Waiting Step	1	Overflow Call Count	500
ACD Comfort tone Usage	Not use	ACD Comfort tone time	
Supervisor Forward Destination		Call Forward Step	1
Rerouting Usage on Queuing Time out	Not Use	Rerouting Destination on Queuing Time out	
Rerouting Usage on Divert Failure	Not Use	Rerouting Destination on Divert Failure	
Rerouting Usage on CTI Link Failure	No use	Rerouting Destination on CTI Link Failure	
Password Usage on Supervisor Mode Change	Not Use	Answer Signal Send Time to I / C Trunk Call	When ACD Group is called
Agent ID Usage at Agent Log on	Not Use	Agent Auto Answer	Use for Log on
Auto Answer Usage at Agent Log on	Not Use	Auto Work Mode Usage at Agent Log on	Not Use
Ring/Tone Mode at Agent Log on	Ring mode	State at Agent Log on	Work Mode
Handset Mode at Agent Log on	Headset	Handset Mode at Agent Log off	Handset
Call Restriction at Agent Log off	No use	Call Restriction between Agents	No use
Agent Auto Switch Time from Work Mode to Ready (sec)		Agent Auto Switch to Work Mode	Connected Call Release
Agent No Answer Option for I / C Call	No use	Announcement on Agent Answer to I / C Trunk	Not Use
Agent No Answer Forward Destination		Agent No Answer Call Time (sec)	
Agent Not Ready Cause Usage	Not Use	Agent Work Mode Cause Usage	Not Use
Active Call Release by Pressing Work Mode Button	Not Use		
Queued Call Count Display Option	No use	Time Interval of Queued Call Count Display	20 Seconds

Process Success!

SIP ACD Feature – Handset/Headset Mode

■ Flex button setting (LIP-9000 Series SIP Phone)

- [090] ACD Agent Headset Ring Mode Change
 - . Ring Mode : LED Off
 - . Tone Mode : Red On
 - . Ring&Tone Mode : Yellow On

Phone Flexible Button

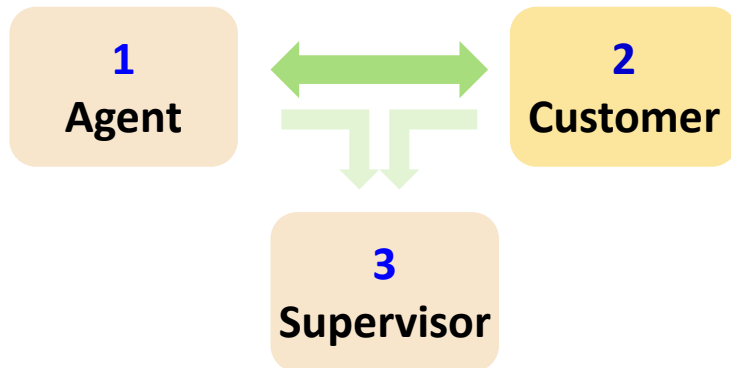
Node 06 Load Modify Delete Close Button Data Copy Button Data Move

SLOT 6900 CH 4 Tenant 6000 Phone No. 1103 DSS Physical Address 000103

Prime Button Information		Button Location		Button Number					
Index	Button Class	Button Type	DN		Dial Digit	Ring Option	Access Type / Button Change	Button Label	Transfer Option
			Tenant	Phone No.					
☐	1	DN Number	6000	1103		Immediate Incoming			
☐	2	Digit	Feature Key		*084		Allow Modification	Agent Log On/Off	
☐	3	Digit	Feature Key		*090		Allow Modification	Ring/Tone mode	
☐	4								
☐	5								

SIP ACD Feature – Monitoring & Coaching

Silent Monitoring

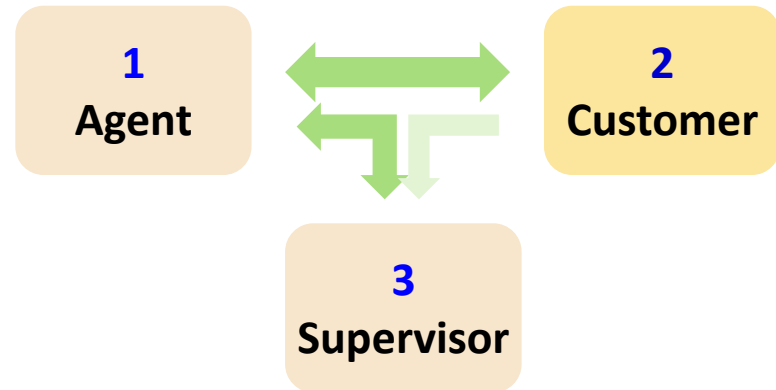


Supervisor can monitor the conversation between agent and customer without notification.

VPCM Voice Mixing Channel

VPCM Type	Agent Type	
	IPKTS	SIP
SW VPCM	0 ch (phone mix)	3 ch
HW VPCM	0 ch (phone mix)	3 ch

Whisper Coaching



Agent requests coaching to the supervisor and the supervisor join to the conversion. The customer can't listen the coaching comment.

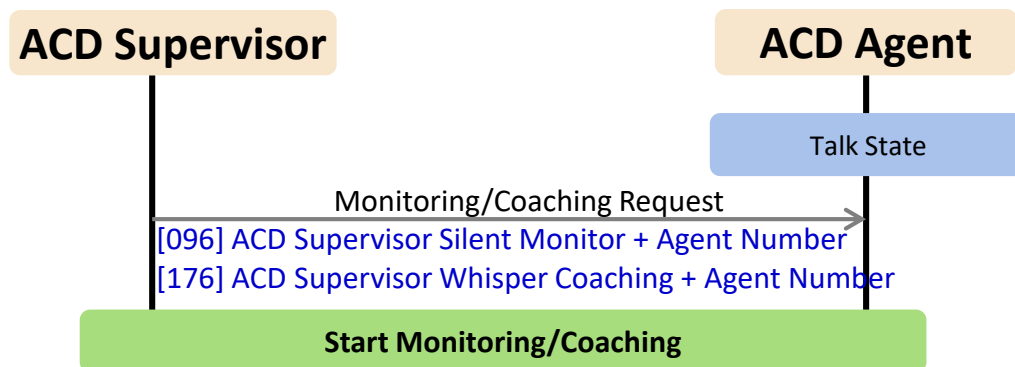
VPCM Voice Mixing Channel

VPCM Type	Agent Type	
	IPKTS	SIP
SW VPCM	7 ch	7 ch
HW VPCM	3 ch	3 ch

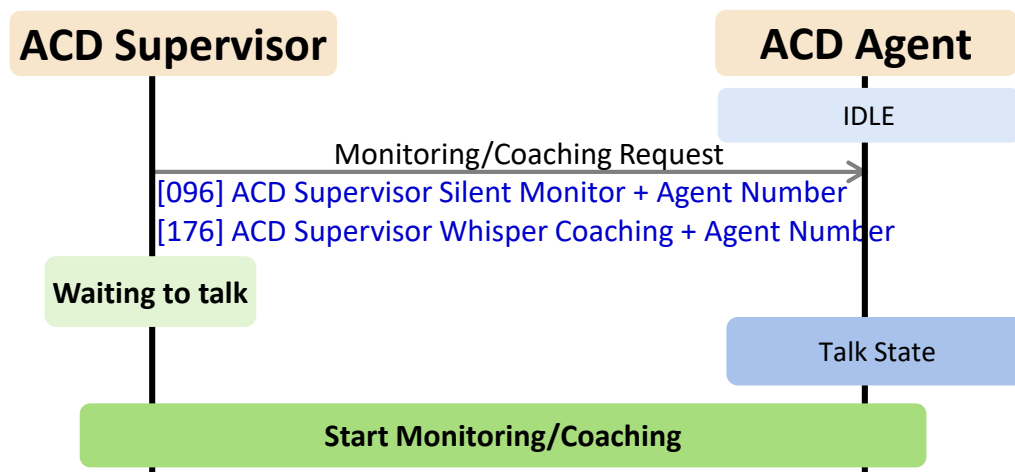
※ U-VPCM or S-VPCM is required to use silent monitoring and whisper coaching.
* Monitoring & Coaching feature was already available for analog/digital/IPKTS phones

SIP ACD Feature – Monitoring & Coaching

- Monitoring/Coaching Request in talk state



- Monitoring/Coaching Request in idle state



SIP ACD Feature – Monitoring & Coaching

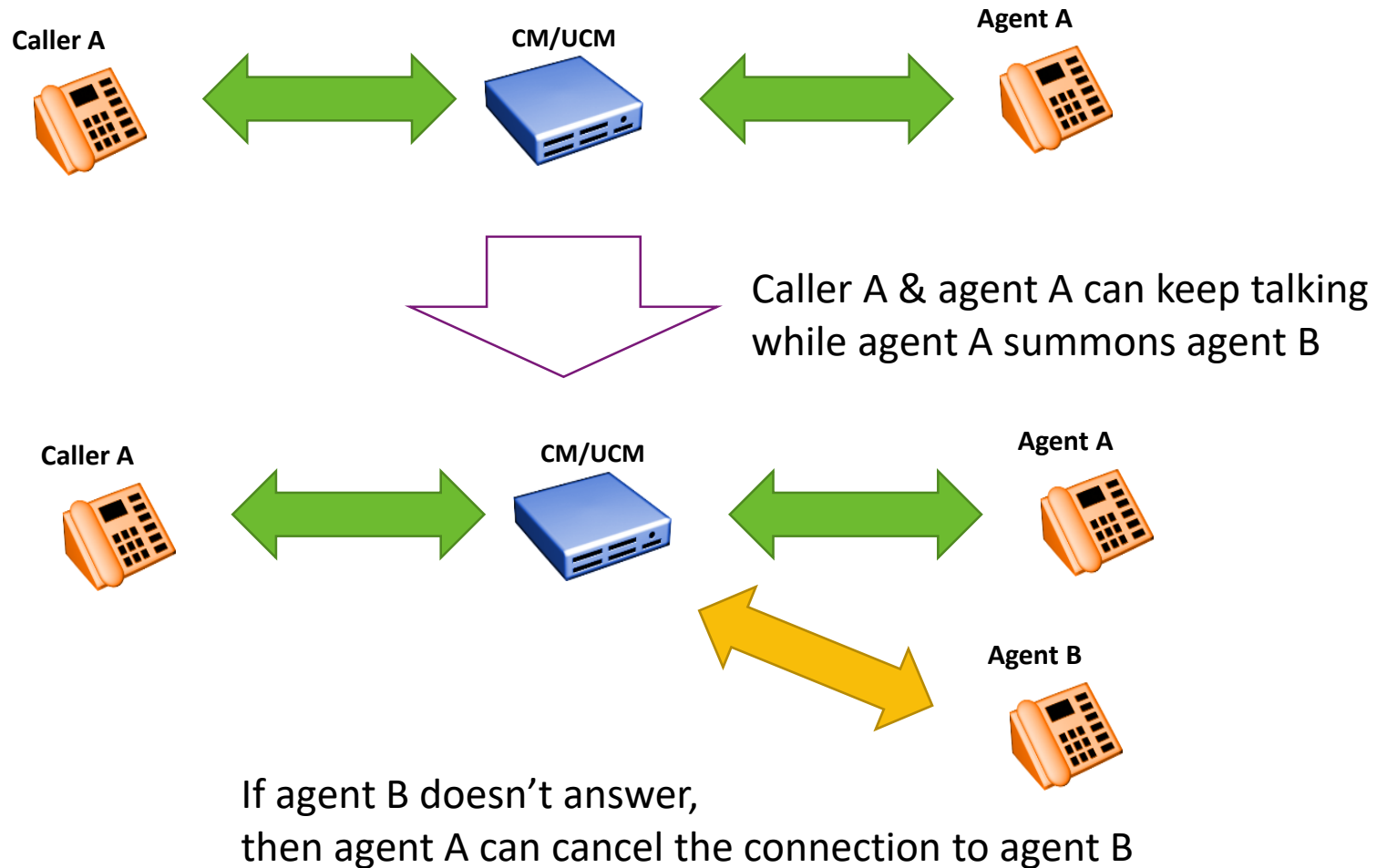
- Coaching Request from Agent



※ Coaching request from Agent is available only using LIP-9000 Series SIP Phone.

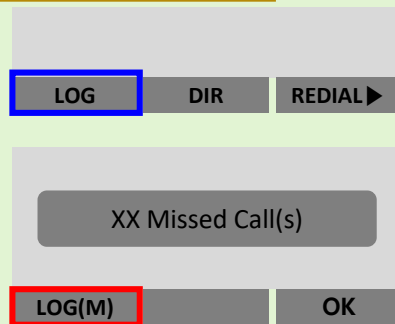
* Monitoring & Coaching feature was already available for analog/digital/IPKTS phones

Single Step Conference (for ACD agents)

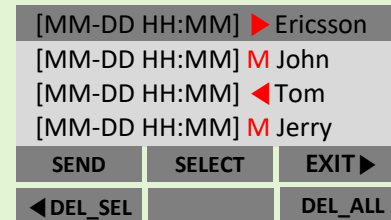


IPKTS Enhanced UX – Call Log

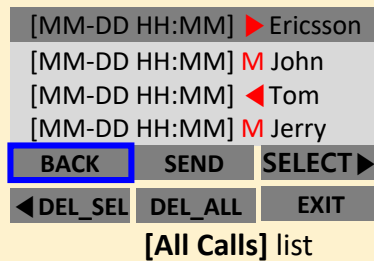
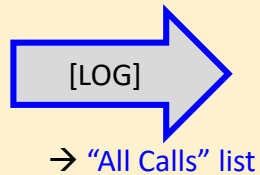
OLD UX



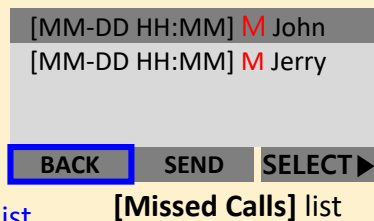
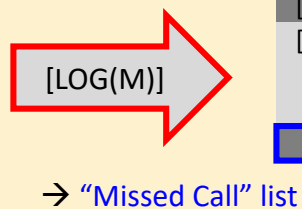
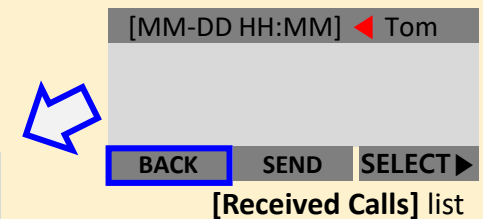
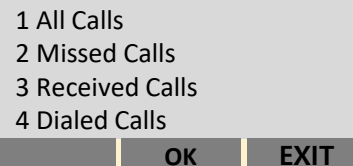
[LOG/LOG(M)] → “All Calls” list



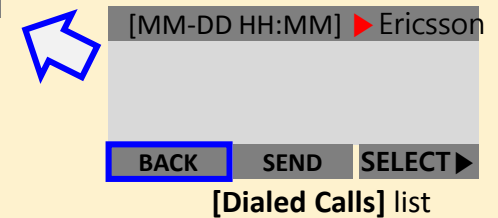
NEW UX



[BACK] soft button
→ “Call Log” main-menu

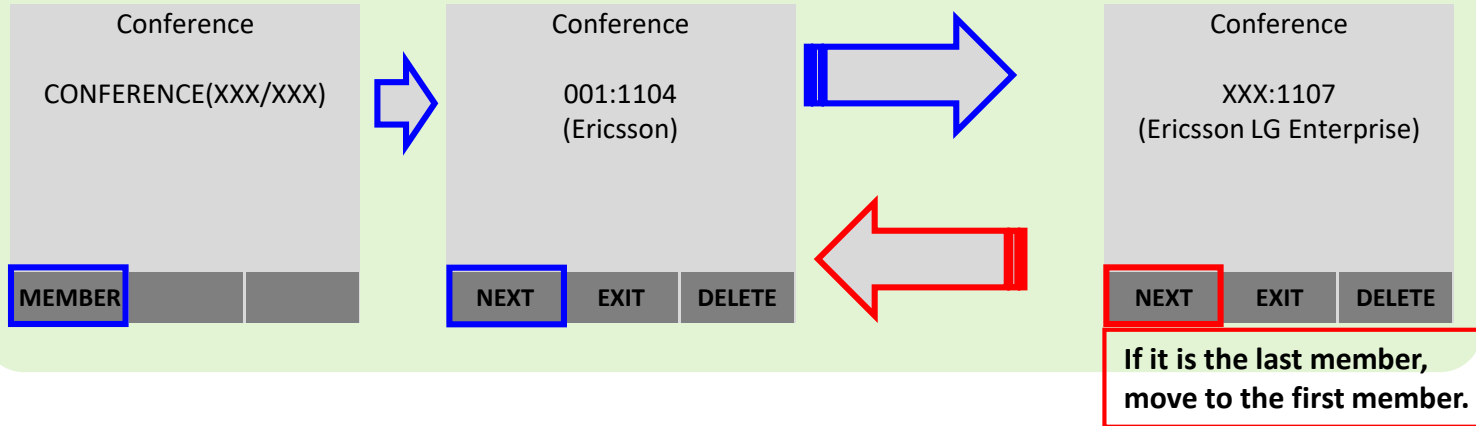


“Call Log” main-menu

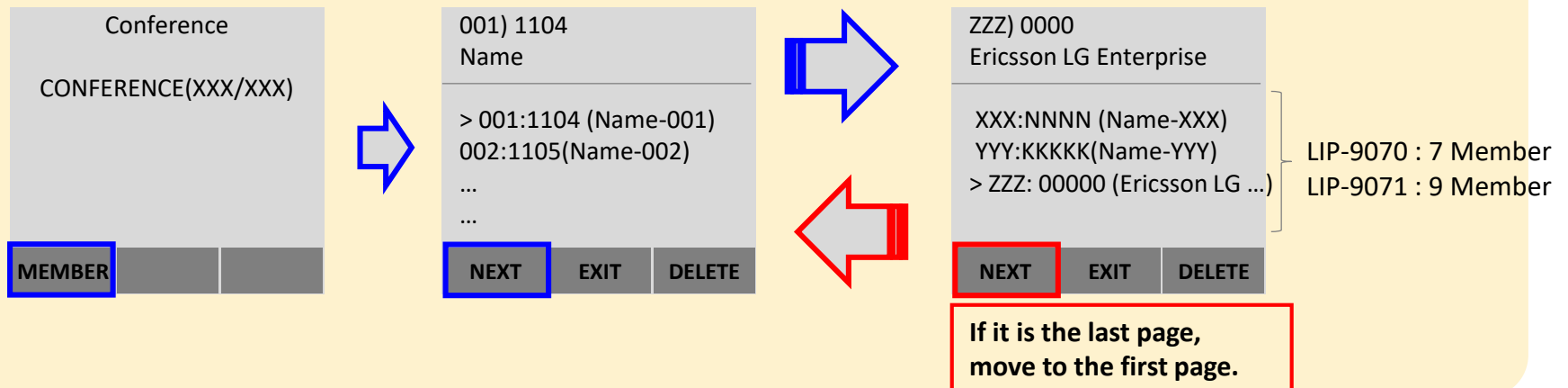


IPKTS Enhanced UX – Conference Member Display

OLD UX



NEW UX



IPKTS Enhanced UX – Consolidated Directory Search

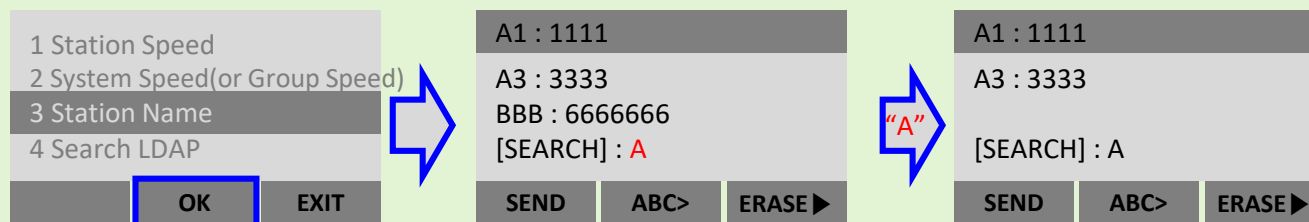
< Directory Menu Option >

1.2.3 Appears according to the “WMS : Tenant Attribute - Directory Menu” settings.

- Station Speed + System Speed + Station Name
- Station Speed + Group Speed + Station Name
- Only Station Speed

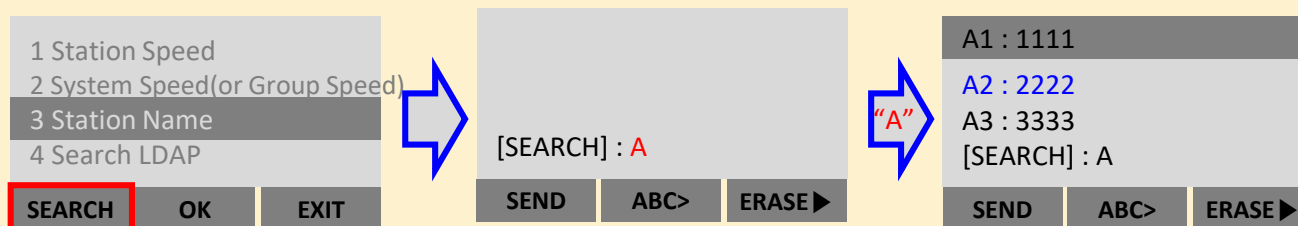
4. If you are using an LDAP server.

OLD UX



NEW UX

Added Soft Menu **[SEARCH]** for Consolidated directory search



ATD Call Forwarding

■ Call Forward Settings

- **Type** : Unconditional, Busy, No Answer, Busy&NoAnswer
- **Service Time** : Not Use, Day, Night, Timed, Manual
- **Destination Number**
- **No Answer Forward Time**

■ Call Forward Priority

- **ATD Key Number** : ATD Night Subscriber > Call Forward / No Answer Auto Hold
- **ATD Number** : Unconditional Cfwd. > Busy Cfwd. > Night Subscriber > ATD Overflow Subscriber > No-Answer Cfwd.

■ Busy Call Forward Conditions

- **"ATD Queue Usage"** : (Not Use) + Busy or Waiting call exist
- **"ATD Overflow Call Count"** : (Call Overflow) + No use Overflow Subscriber

■ No Answer Call Forward, Auto Hold

- **Priority** : ATD Number > ATD Key Number > Auto Hold (→ Call ATD Key Number)

ATD Call Forwarding

- Call Forward Setting via IP-ATD

- IP-ATD : Function Button > CFWD

A screenshot of a software interface titled 'CFWD'. It features a search bar for 'Station No' with the value '1104'. Below this is a section for 'Call Forward Type' with three radio button options: 'Not Use', 'Unconditional', and 'Busy'. To the right of these are two more radio button options: 'No Answer' and 'Busy or No Answer', with 'Busy or No Answer' being selected. At the bottom, there is a field for 'Forward No' with the value '8412102'. A red error message box at the bottom right states '※ Time can not specified.'.

CFWD

Add Cancel

Station No 1104

Call Forward Type

☐ Not Use ☐ No Answer

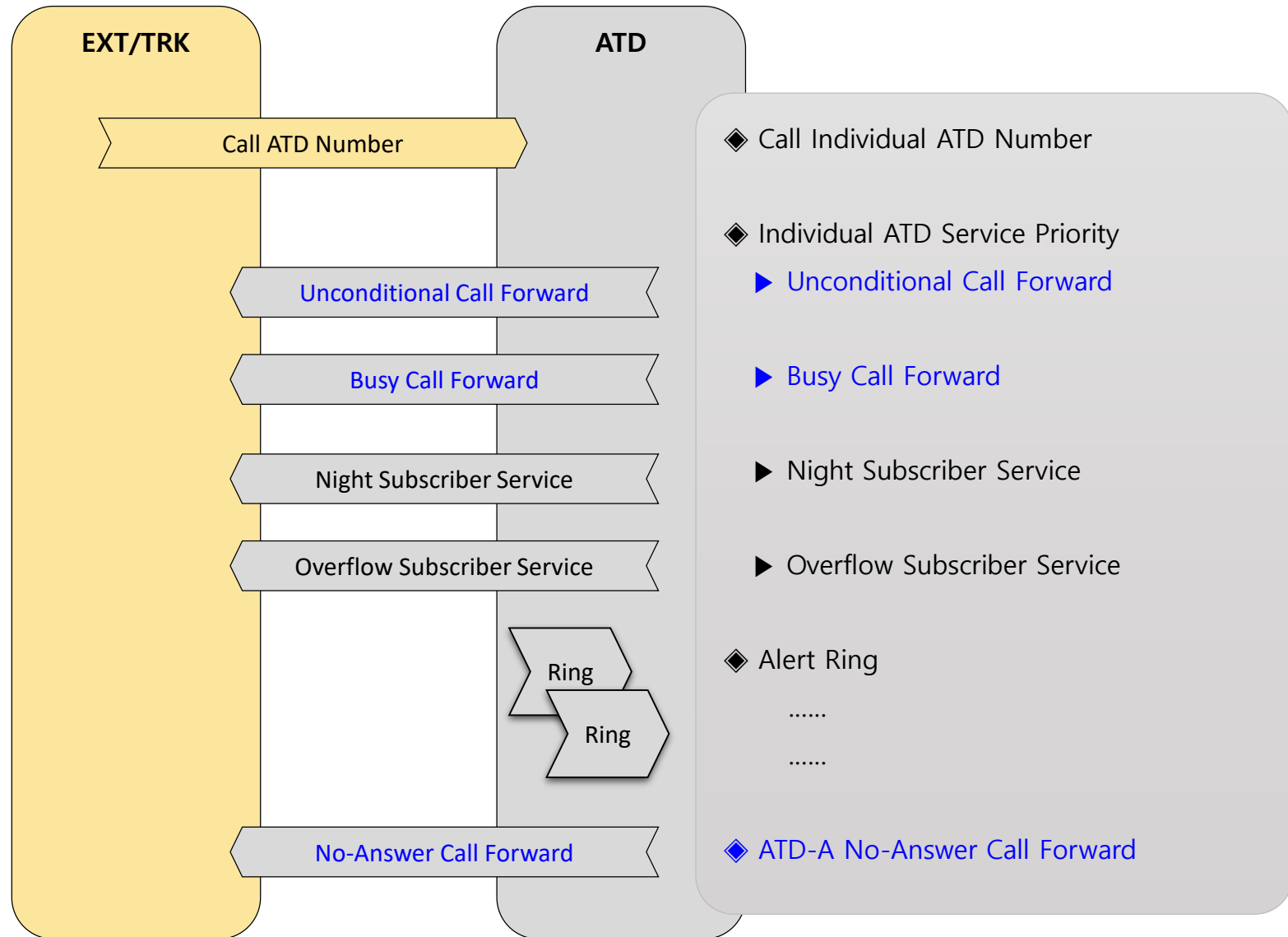
☐ Unconditional ☒ Busy or No Answer

☐ Busy

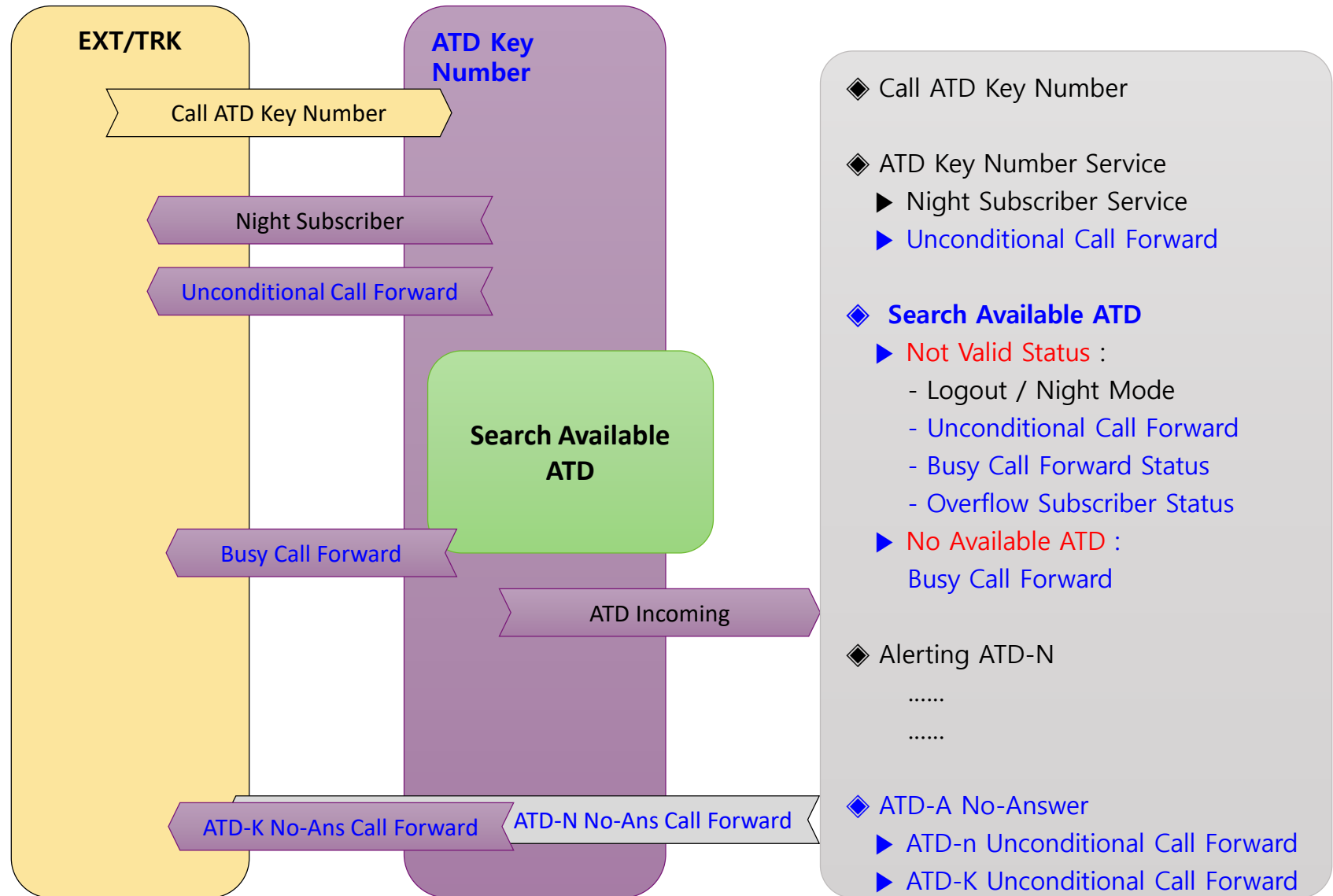
Forward No 8412102

※ Time can not specified.

ATD Call Forwarding – Individual ATD Call



ATD Call Forwarding – ATD Key Number Call



New/Changed License and Price

Feature	Related License	Price	Remark
OpenAPI	UCML-SCTI	No change	Refer to UCM price list
SCTI license separation	UCML-SCTI : Call control	No change	Refer to UCM price list
SCTI license separation	UCML-SCTI-XML : Call event	Free	
NMS license separation	UCML-NMS : NMS interface license	Free for UCM 2.5 or later No change for UCM 2.0 or earlier (includes eNMS S/W)	Refer to UCM price list
NMS license separation	UCML-NMS-SRV : NMS server license	No change	Mandatory for using eNMS for UCM 2.5 or later

IPECS is an Ericsson-LG Brand



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